

# ReadMe: Using GIMP to Digitize (Selecting Pixels by Color)

Margaret Bock  
West Virginia University  
mbock1@mix.wvu.edu

**Preliminary Summary: Please do not cite or circulate without permission.**

**STEP BY STEP** Here's How to Do It:

[https://doc.ggis.org/testing/en/docs/training\\_manual/forestry/stands\\_digitizing.html](https://doc.ggis.org/testing/en/docs/training_manual/forestry/stands_digitizing.html)

Photo Software: GIMP (GNU Image Manipulation Program)(Open Source)

<https://www.gimp.org/>

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## STEP BY STEP SUMMARY

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## FOR POINT DATA:

### GIMP

Select pixel by color

Merge files of different shades

Export to new file (.tif)

### GIS

Georeference .tif

Convert raster (.tif) to vector (.shp)

Polygon Centroid

\*continue as normal\*

Join attributes by location, Count points in polygon, Categorized layer styling, etc.

## FOR LINE DATA:

### GIMP

Select pixel by color

Merge files of different shades

Export to new file (.tif)

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## GIS

### Georeference .tif

**\*\*You want to make the lines BEFORE you convert to vector\*\***

Raster Calculator:

1. Input: georeferenced .tif
2. Band (DOUBLE CHECK ON TRANSPARENCY SETTINGS, 1948 hog map was Band 4: Alpha)
3. Use for instance the following formulae in Calculation in gdalnumeric syntax ...:  
`1*(A>0)`
4. Set output nodata value to 0
5. Set Output raster type to Byte (fixes the data type issue)

Helpful online threads about raster calculator:

(<https://gis.stackexchange.com/questions/197145/error-in-r-thin-qgis-grass-input-raster-must-be-of-type-cell>)

(<https://gis.stackexchange.com/questions/251360/converting-raster-to-vector-by-generating-center-lines/251361>)

R.thin command:

Input: Calculated layer from previous step

R.to.vect command:

Input: Thinned layer from previous step

Output: line

Should make lines from pixels!

**\*continue as normal\***

Join attributes by location, Add geometric attributes, etc.